

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for configuring a node in a graphical program, the method comprising:

displaying the node in the graphical program, wherein a plurality of possible input terminals and/or a plurality of possible output terminals are associated with the node;

receiving user input specifying configuration information for the node;

automatically displaying one or more input terminals of the plurality of possible input terminals and/or one or more output terminals of the plurality of possible output terminals for the node, based on the configuration information, wherein said displaying the one or more input terminals for the node comprises displaying only a first subset of the plurality of possible input terminals, wherein a second subset of the plurality of possible input terminals are not displayed, and wherein said displaying the one or more output terminals for the node comprises displaying only a first subset of the plurality of possible output terminals, wherein a second subset of the plurality of possible output terminals are not displayed; and

performing at least one of:

connecting an input terminal of the one or more input terminals of the node to a data source in the graphical program, in response to user input; and

connecting an output terminal of the one or more output terminals of the node to a data target in the graphical program, in response to user input.

2. (Cancelled)

3. (Previously Presented) The method of claim 1,
wherein said receiving user input specifying the configuration information comprises receiving user input specifying:

the one or more input terminals from the plurality of possible input terminals; and/or

the one or more output terminals from the plurality of possible output terminals;

wherein said automatically displaying one or more input terminals and/or one or more output terminals for the node comprises automatically displaying the one or more input terminals and/or the one or more output terminals specified by the user input.

4. (Previously Presented) The method of claim 1, further comprising:

automatically determining the one or more input terminals of the plurality of possible input terminals and/or the one or more output terminals of the plurality of possible output terminals for the node, based on the configuration information;

wherein said automatically determining the one or more input terminals of the plurality of possible input terminals for the node comprises automatically selecting the one or more input terminals from the plurality of possible input terminals;

wherein said automatically determining the one or more output terminals of the plurality of possible output terminals for the node comprises automatically selecting the one or more output terminals from the plurality of possible output terminals.

5. (Previously Presented) The method of claim 4,

wherein the configuration information specifies desired functionality for the node;

wherein said automatically determining the one or more input terminals and/or the one or more output terminals for the node based on the configuration information comprises automatically determining the one or more input terminals and/or the one or more output terminals for the node based on the specified desired functionality for the node.

6. (Currently Amended) The method of claim 5, wherein automatically determining the one or more input terminals and/or the one or more output terminals for the node based on the specified desired functionality for the node comprises one or more of:

not selecting a first input terminal for inclusion in the one or more automatically created and displayed input terminals, wherein the first input terminal is not necessary for implementing the specified desired functionality for the node; and/or

not selecting a first output terminal for inclusion in the one or more automatically created and displayed output terminals, wherein the first output terminal is not necessary for implementing the specified desired functionality for the node.

7. (Original) The method of claim 1,

wherein said displaying the node in the graphical program is performed in response to user input requesting inclusion of the node in the graphical program.

8. (Previously Presented) The method of claim 1,

wherein said connecting an input terminal of the one or more input terminals of the node to a data source in the graphical program comprises connecting an input terminal of the node to an output terminal of another node in the graphical program;

wherein said connecting an output terminal of the one or more output terminals of the node to a data target in the graphical program comprises connecting an output terminal of the node to an input terminal of another node in the graphical program.

9. (Currently Amended) The method of claim 1, further comprising:

automatically generating graphical source code for the node to implement functionality specified by the configuration information, wherein said automatically generating the graphical source code comprises automatically generating a plurality of interconnected nodes operable to implement the functionality specified by the configuration information.

10. (Original) The method of claim 1, further comprising:

receiving user input requesting to provide configuration information for the node;
displaying a graphical user interface (GUI) input panel in response to the user input requesting to provide configuration information for the node;

wherein said receiving user input specifying configuration information for the node comprises receiving user input via the GUI input panel.

11. (Previously Presented) The method of claim 1,
 - wherein said displaying the input terminals and/or output terminals for the node comprises displaying one or more labels for the node, wherein each label corresponds to an input terminal or output terminal;
 - wherein said connecting an input terminal of the node to a data source in the graphical program comprises connecting a label to the data source;
 - wherein said connecting an output terminal of the node to a data target in the graphical program comprises connecting a label to the data target.

12. (Original) The method of claim 1,
 - wherein the configuration information includes an alias corresponding to a first input or output terminal of the node;
 - wherein displaying the first input or output terminal comprises displaying the alias;
 - wherein the alias visually indicates the first input or output terminal of the node such that the first input or output terminal is identifiable for connection to terminals of other nodes in the graphical program.

13.-19. (Cancelled).

20. (Currently Amended) A memory medium for configuring a node in a graphical program, the memory medium comprising program instructions executable to:
 - display the node in the graphical program, wherein a plurality of possible input terminals and/or a plurality of possible output terminals are associated with the node;
 - receive user input specifying configuration information for the node;
 - automatically display one or more input terminals of the plurality of possible input terminals and/or one or more output terminals of the plurality of possible output terminals for the node, based on the configuration information, wherein said one or more

input terminals for the node comprises only a first subset of the plurality of possible input terminals, wherein a second subset of the plurality of possible input terminals are not displayed, and wherein said one or more output terminals for the node comprises only a first subset of the plurality of possible output terminals, wherein a second subset of the plurality of possible output terminals are not displayed; and

perform at least one of:

connecting an input terminal of the one or more input terminals of the node to a data source in the graphical program, in response to user input; and

connecting an output terminal of the one or more output terminals of the node to a data target in the graphical program, in response to user input.

21. (Cancelled).

22. (Previously Presented) The memory medium of claim 20, wherein said receiving user input specifying the configuration information comprises receiving user input specifying:

one or more input terminals from the plurality of possible input terminals; and/or

one or more output terminals from the plurality of possible output terminals;

wherein said automatically displaying one or more input terminals and/or one or more output terminals for the node comprises automatically displaying the one or more input terminals and/or the one or more output terminals specified by the user input.

23. (Previously Presented) The memory medium of claim 20, further comprising program instructions executable to:

automatically determine the one or more input terminals of the plurality of possible input terminals and/or the one or more output terminals of the plurality of possible output terminals for the node, based on the configuration information;

wherein said automatically determining the one or more input terminals of the plurality of possible input terminals for the node comprises automatically selecting the one or more input terminals from the plurality of possible input terminals;

wherein said automatically determining the one or more output terminals of the plurality of possible output terminals for the node comprises automatically selecting the one or more output terminals from the plurality of possible output terminals.

24. (Previously Presented) The memory medium of claim 23,
wherein the configuration information specifies desired functionality for the node;
wherein said automatically determining the one or more input terminals and the one or more output terminals for the node based on the configuration information comprises automatically determining the one or more input terminals and/or the one or more output terminals for the node based on the specified desired functionality for the node.

25. (Previously Presented) The memory medium of claim 24,
wherein automatically determining the one or more input terminals and the one or more output terminals for the node based on the specified desired functionality for the node comprises one or more of:

not selecting a first input terminal for inclusion in the one or more automatically displayed input terminals, wherein the first input terminal is not necessary for implementing the specified desired functionality for the node;

not selecting a first output terminal for inclusion in the one or more automatically displayed output terminals, wherein the first output terminal is not necessary for implementing the specified desired functionality for the node.

26. (Currently Amended) The memory medium of claim 20, further comprising program instructions executable to:

automatically generate graphical source code for the node to implement functionality specified by the configuration information, wherein said automatically generating the graphical source code comprises automatically generating a plurality of

interconnected nodes operable to implement the functionality specified by the configuration information.

27. (Original) The memory medium of claim 20, further comprising program instructions executable to:

receive user input requesting to provide configuration information for the node;
display a graphical user interface (GUI) input panel in response to the user input requesting to provide configuration information for the node;

wherein said receiving user input specifying configuration information for the node comprises receiving user input via the GUI input panel.

28. (Previously Presented) The memory medium of claim 20,
wherein said displaying the input terminals and/or output terminals for the node comprises displaying one or more labels for the node, wherein each label corresponds to an input terminal or output terminal;

wherein said connecting an input terminal of the node to a data source in the graphical program comprises connecting a label to the data source;

wherein said connecting an output terminal of the node to a data target in the graphical program comprises connecting a label to the data target.

29. (Original) The memory medium of claim 20,
wherein the configuration information includes an alias corresponding to a first input or output terminal of the node;

wherein displaying the first input or output terminal comprises displaying the alias;

wherein the alias visually indicates the first input or output terminal of the node such that the first input or output terminal is identifiable for connection to terminals of other nodes in the graphical program.

30.-33. (Cancelled)

34. (Currently Amended) A system for configuring a node in a graphical program, the system comprising:

a processor;

a memory storing program instructions;

wherein the processor is operable to execute the program instructions to:

display the node in the graphical program, wherein a plurality of possible input terminals and/or a plurality of possible output terminals are associated with the node;

receive user input specifying configuration information for the node;

automatically display one or more input terminals of the plurality of possible input terminals and/or one or more output terminals of the plurality of possible output terminals for the node, based on the configuration information, wherein in displaying the one or more input terminals for the node, only a first subset of the plurality of possible input terminals are displayed, wherein a second subset of the plurality of possible input terminals are not displayed, and wherein in displaying the one or more output terminals for the node, only a first subset of the plurality of possible output terminals are displayed, wherein a second subset of the plurality of possible output terminals are not displayed; and

perform at least one of:

connecting an input terminal of the one or more input terminals of the node to a data source in the graphical program, in response to user input; and

connecting an output terminal of the one or more output terminals of the node to a data target in the graphical program, in response to user input.

35. (Cancelled)

36. (Previously Presented) The system of claim 34, wherein the user input specifying the configuration information specifies:

the one or more input terminals from the plurality of possible input terminals; and/or

the one or more output terminals from the plurality of possible output terminals; and

wherein, to automatically display one or more input terminals and/or one or more output terminals for the node, the program instructions are further executable by the processor to automatically display the one or more input terminals and/or the one or more output terminals specified by the user input.

37. (Previously Presented) The system of claim 34, wherein the program instructions are further executable by the processor to:

automatically determine the one or more input terminals of the plurality of possible input terminals and/or the one or more output terminals of the plurality of possible output terminals for the node, based on the configuration information;

wherein, to automatically determine the one or more input terminals of the plurality of possible input terminals for the node, the program instructions are further executable by the processor to automatically select the one or more input terminals from the plurality of possible input terminals; and

wherein, to automatically determine the one or more output terminals of the plurality of possible output terminals for the node, the program instructions are further executable by the processor to automatically select the one or more output terminals from the plurality of possible output terminals.

38. (Previously Presented) The system of claim 37,
wherein the configuration information specifies desired functionality for the node; and

wherein, to automatically determine the one or more input terminals and/or the one or more output terminals for the node based on the configuration information, the program instructions are further executable by the processor to automatically determine the one or more input terminals and/or the one or more output terminals for the node based on the specified desired functionality for the node.

39. (Currently Amended) The system of claim 38, wherein, to automatically determine the one or more input terminals and/or the one or more output terminals for the node based on the specified desired functionality for the node, the program instructions are further executable by the processor to:

not select a first input terminal for inclusion in the one or more automatically ~~created and displayed~~ input terminals, wherein the first input terminal is not necessary for implementing the specified desired functionality for the node; and/or

not select a first output terminal for inclusion in the one or more automatically ~~created and displayed~~ output terminals, wherein the first output terminal is not necessary for implementing the specified desired functionality for the node.

40. (Currently Amended) The system of claim 34,

wherein, ~~to display said displaying~~ the node in the graphical program is performed in response to user input requesting inclusion of the node in the graphical program.

41. (Previously Presented) The system of claim 34,

wherein, to connect an input terminal of the one or more input terminals of the node to a data source in the graphical program, the program instructions are further executable by the processor to connect an input terminal of the node to an output terminal of another node in the graphical program;

wherein to connect an output terminal of the one or more output terminals of the node to a data target in the graphical program, the program instructions are further executable by the processor to connect an output terminal of the node to an input terminal of another node in the graphical program.

42. (Currently Amended) The system of claim 34, wherein the program instructions are further executable by the processor to:

automatically generate graphical source code for the node to implement functionality specified by the configuration information, ~~wherein said automatically generating the graphical source code comprises automatically generating a plurality of~~

interconnected nodes operable to implement the functionality specified by the configuration information..

43. (Previously Presented) The system of claim 34, wherein the program instructions are further executable by the processor to:

receive user input requesting to provide configuration information for the node;

display a graphical user interface (GUI) input panel in response to the user input requesting to provide configuration information for the node;

wherein to receive user input specifying configuration information for the node, the program instructions are further executable by the processor to receive user input via the GUI input panel.

44. (Previously Presented) The system of claim 34,

wherein to display the input terminals and/or output terminals for the node, the program instructions are further executable by the processor to display one or more labels for the node, wherein each label corresponds to an input terminal or output terminal;

wherein to connect an input terminal of the node to a data source in the graphical program, the program instructions are further executable by the processor to connect a label to the data source;

wherein to connecting an output terminal of the node to a data target in the graphical program, the program instructions are further executable by the processor to connect a label to the data target.

45. (Previously Presented) The system of claim 34,

wherein the configuration information includes an alias corresponding to a first input or output terminal of the node;

wherein, to display the first input or output terminal, the program instructions are further executable by the processor to display the alias, wherein the alias visually indicates the first input or output terminal of the node such that the first input or output terminal is identifiable for connection to terminals of other nodes in the graphical program.

46. (Previously Presented) The system of claim 34, wherein said automatically displaying one or more input terminals and/or one or more output terminals for the node comprises automatically creating and displaying the one or more input terminals and/or the one or more output terminals.

47. (Previously Presented) The method of claim 1, wherein said automatically displaying one or more input terminals and/or one or more output terminals for the node comprises automatically creating and displaying the one or more input terminals and/or the one or more output terminals.